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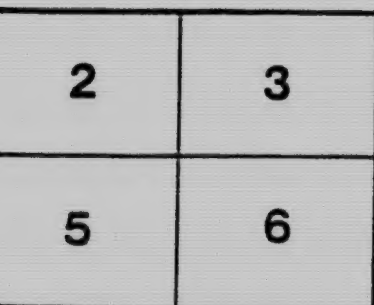
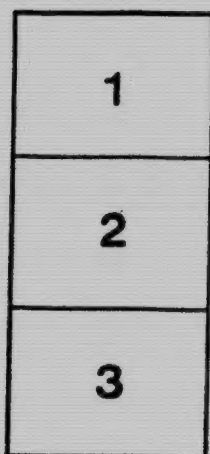
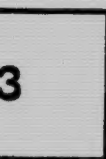
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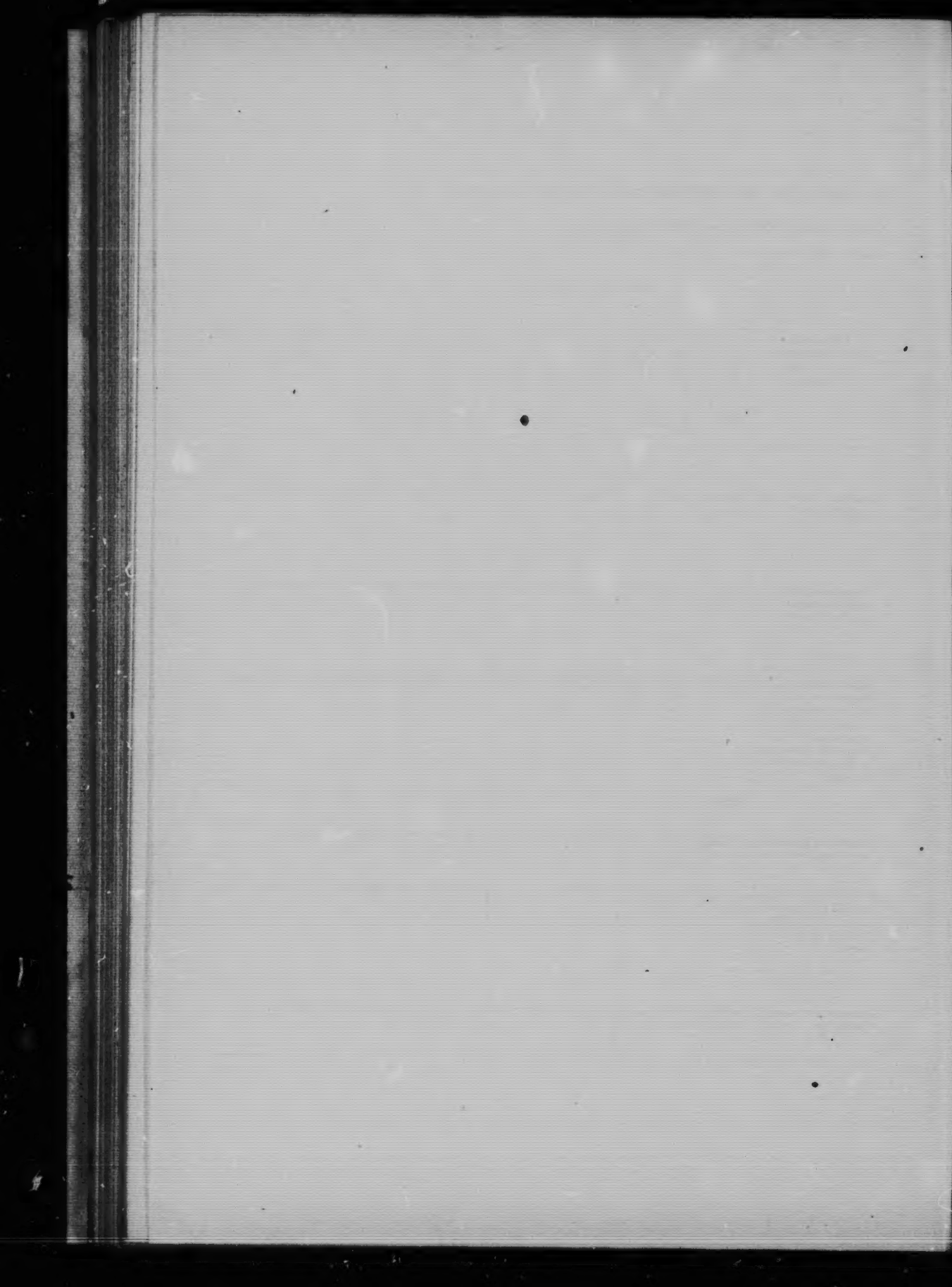
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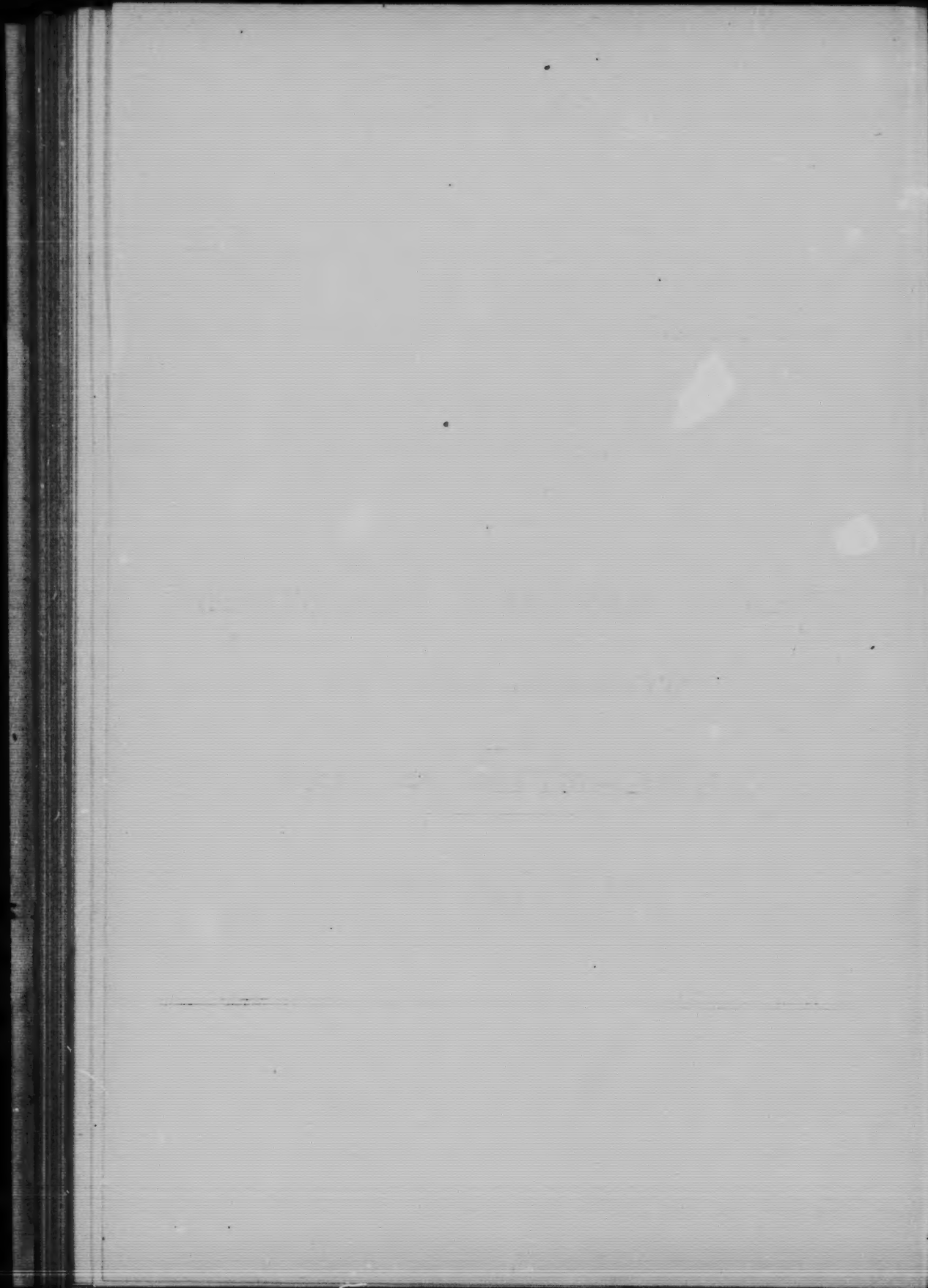




O. H. M. S.

W. J. Gerald
Deputy Minister.

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA
BULLETIN No 133
BUTTER, 1907



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BULLETIN No. 133

BUTTER, 1907

OTTAWA, April 16, 1907.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—On the 30th January last I had the honour of reporting to you the results of analysing 101 samples of butter collected in 1906 (Bulletin No. 131) and of pointing out that two of these consisted almost exclusively of foreign fat and that apparently attempts were being made either to manufacture or to import into Canada oleomargarine, in contravention of the provisions of the Butter Act, 1903. On account of the small number of these adulterated samples compared with those found genuine (about 1 in 50) and the uselessness of expending analytical work upon the unadulterated samples the suggestion was made by Mr. A. McGill, Assistant Analyst to the Chief Analyst, that a larger number of butter samples should be collected, but that the fats from these should first be tested as to their refractive index, and only those butters subjected to further examination which gave unsatisfactory results in this particular. This plan appeared to me to have great advantages and after it had obtained your approval, orders were issued to collect samples in all the food inspection districts of the Dominion, the total number being 1,000. As the examination progressed however it was found that the allocated samples came exclusively from the Province of Quebec, and therefore the orders for some of the Western inspection districts were cancelled before the full number first required had been obtained. The number collected and subjected to examination under the Refractometer, and the results of this examination are shown in the following statement:—

Name of District.	Genuine.	Doubtful.	Containing Foreign fat.	Total Number collected.
Nova Scotia	50	0	0	50
Prince Edward Island	50	0	0	50
New Brunswick	50	0	0	50
Quebec	106	0	6	112
St. Hyacinthe	150	0	0	150
Montreal	198	0	2	200
Ottawa	49	1	0	50
Kingston	46	4	0	50
Toronto	100	0	0	100
London	50	0	0	50
Manitoba	7	0	0	7
British Columbia	12	0	0	12
	868	5	8	881

The samples thus found to be adulterated with foreign fat from mere testing by the Butyro refractometer were the following :—

Date of Collection.	No. of Sample.	Name and Address of Vendor.	Name of Furnisher as given by Vendor.	Reading of Butyro-refractometer at 25° C. by A. McGill and Miss R. Davidson.
1907.				
Jan. 15	26008	Els. Couture, 124 Caron St., Quebec.	Emond & Côté, Quebec.....	58°3'58"8".
" 17	26105	L. Letourneau, 33 Smith St., Quebec.	Ost. Jacques & Cie, Quebec.	57°5'57"6".
" 25	26151	F. Delisle, 131 Hermine St., Quebec.	Emond & Côté, Quebec.....	57°5'.
" 25	26152	Dame N. L. Pouliot, 96 Kirouack St., Quebec.	" "	57°8'.
" 29	26157	J. E. Julien, 1168 St. Valier St., Quebec.	Not known.....	57°0'.
" 30	26166	F. Hebert, 191 St. Germain St., Quebec.	Emond & Côté, Quebec.....	57°5'.
" 9	31732	H. Delorme, 233 Gain St., Montreal.	Not known.....	57°8'58"0'.
" 15	31866	G. Bertrand, 1742 St. Catherine East, Montreal.	W. Champagne, Montreal...	57°3'.

These eight samples were then submitted to the District analyst, Dr. J. T. Donald, Montreal, for further examination along with two of the doubtful ones, namely No. 26176 the refractive index of which was 54° and No. 31721 whose index of 48°49' had been found exceptionally low. The readings in the case of the genuine samples at 25°C. were mostly about 52°, ranging from 49°5' to 53°3'. The analyses by Dr. Donald resulted as follows :—

No of Sample.	Vendor.	Moisture.	Fat.	Salt.	Curd.	Reichert-Meisel Value.	Specific gravity of fat at 100°C.	Opinion.
		p. c.	p. c.	p. c.	p. c.	No.		
26008	E. Couture.....	6.06	90.03	1.92	1.41	1.6	903.8	Adulterated, containing little if any butter fat.
26105	L. Letourneau...	8.32	85.81	3.44	1.60	1.4	895.6	" "
26151	F. Delisle.....	5.67	87.19	4.75	1.55	1.3	899.2	" "
26152	Dame Pouliot...	7.11	88.94	2.61	0.53	1.5	898.4	" "
26157	J. E. Julien.....	5.56	89.38	2.64	1.64	1.2	914.0	" "
26166	F. Hebert.....	5.83	89.00	3.06	1.19	1.2	909.0	" "
26176	H. Lapointe...	14.19	73.09	10.77	0.99	25.5	904.6	Genuine but High in salt.
31731	L. Allaire.....	10.55	86.15	2.21	1.08	27.6	907.7	Genuine.
31732	H. Delorme.....	5.80	90.05	2.22	1.39	2.0	900.0	Adulterated, containing little if any butter fat.
31866	G. Bertrand...	4.90	92.89	1.96	0.24	2.5	896.9	" "

I have the honour to be, sir,
Your obedient servant,

THOMAS MACFARLANE,
Chief Analyst.



